Amended claims

I claim:

1-21 (Cancelled)

22) (New) An electronic circuit for adding reverberation effects to an audio signal generated from an external high impedance source and passing the reverberated signal at a predetermined impedance for input into an external sound device, said electronic circuit comprising, in combination:

(a) a reverberation effects circuit having pre-amplifier/driver and recovery amplifier sections and a spring reverberation device coupled thereinbetween, said pre-amplifier/driver section having an input jack for receiving therethrough a high impedance signal produced from an external audio source, a DC isolation filter, and a low impedance, high current output for input into said spring reverberation device having an output for passing a low impedance signal to said recovery amplifier section for increasing the impedance of the signal to a level acceptable for input into the external sound device.

23) (New) The electronic circuit of claim 22 wherein the spring reverberation device employs three springs with each of said springs having a first spring end and a second spring end and each of the three first spring ends connected to a single first spring end connecting bar, and each of the three second spring ends connected a second spring end connecting bar.

24) (New) The electronic circuit as set forth in claim 23, wherein said input jack comprises a reverberation effects bypass for maintaining the integrity and impedance of the audio signal through said reverberation effects circuit for direct input into the external sound device.

25) (New) The electronic circuit as set forth in claim 23, wherein said pre-amplifier/driver section comprises first and second operational amplifiers each having inverting and non-inverting inputs and an output, each of said outputs comprising a negative feedback loop coupled to said inverting inputs and shunted to ground for setting a predetermined gain value at said output.

26) (New) The electronic circuit as set forth in claim 25, wherein said first operational amplifier comprises a switch at said non-inverting input for controlling the audio signal path through said reverberation effects circuit and a path to ground comprising resistive

capacity for maintaining an impedance level into said first operational amplifier and keeping the audio source from being loaded.

27) (New) The electronic circuit as set forth in claim 25, wherein said negative feedback loop of said first operational amplifier comprises a 50K linear potentiometer having variable resistive capacity to variably adjust gain of the signal and establish low impedance at said output of said first operational amplifier.

28) (New) The electronic circuit as set forth in claim 25, wherein said output of said first operational amplifier is coupled to said non-inverting input of said second operational amplifier, said input comprising a filter for blocking passage of dc signals while allowing passage of the audio signal into said second operational amplifier, said negative feedback loop of said second operational amplifier comprising a resistor/capacitor arrangement for stabilizing said feedback loop and restoring phase margin to said second operational amplifier.

29) (New) The electronic circuit as set forth in claim 1, wherein said reverberation device comprises a 3-spring configuration operable at an input impedance of 800 ohms and an output impedance of 2575 ohms.

30) (New) The electronic circuit as set forth in claim 23, wherein said recovery amplifier section comprises a single operational amplifier having an inverting input for receiving a reverberated signal from said reverberation device, a non-inverting input shunted to ground and an output comprising a negative feedback loop coupled to said inverting input for setting the reverberated signal at a predetermined gain and impedance for input into the external sound device.

31) (New) The electronic circuit as set forth in claim 30, wherein said negative feedback loop of said single operational amplifier comprises a 50K linear potentiometer having variable resistive capacity to variably adjust gain and establish a predetermined impedance of the signal at said output suitable for input into the external sound device.

32) (New) The electronic circuit as set forth in claim 22, wherein said recovery amplifier section comprises an auxiliary jack fitted with a switch for clamping a signal to ground to intermittently control the external sound device.

33) (New) A method for adding reverberation effects to an audio signal generated from an external high impedance device and passing the reverberated signal at a predetermined impedance for input into an external sound device, said method comprising the steps of:
(a) sending the audio signal into an non-inverting input of a first operational amplifier having an inverting input shunted to ground and an output comprising a negative feedback loop coupled to said inverting input for setting a predetermined gain value and impedance at said output prior to being coupled to a non-inverting input of a second operational amplifier having an inverting input shunted to ground and a low impedance, high current output for input into a spring reverberation device having an output for passing therethrough a reverberated signal;
(b) passing the audio signal through a DC-Isolation filter.
(c) passing the reverberated signal into an inverting input of a single operational amplifier having a non-inverting input shunted to ground and an output having a negative feedback loop coupled to said inverting input for setting a predetermined gain and impedance acceptable for input into the external sound device.
34) (New) The method of claim 33 wherein the spring reverberation device comprises three springs with each of said springs having a first spring end and a second spring end and each of the three first spring ends connected to a single first spring end connecting bar, and each of the three second spring ends connected a second spring end connecting bar.
35) (New) A method as set forth in claim 34, wherein said negative feedback loop of said first operational amplifier comprises a 50K linear potentiometer having variable resistive capacity to variably adjust gain of the signal and establish low impedance at said output of said first operational amplifier.
36) (New) A method as set forth in claim 34, wherein said negative feedback loop of said second operational amplifier comprises a resistor/capacitor arrangement for stabilizing said feedback loop and restoring phase margin to said second operational amplifier.
37) (New) A method as set forth in claim 34, further comprising the step of coupling a switch at said non-inverting input of said first operational amplifier for controlling the addition of reverberation to the audio signal and a reverberation effects bypass prior to

said switch for maintaining the integrity and impedance of the audio signal for direct input into the external sound device.

38) (New) An electronic circuit for adding reverberation effects to an audio signal generated from an external high impedance source and passing the reverberated signal at a predetermined impedance for input into an external sound device, said electronic circuit comprising, in combination:

(a) first and second operational amplifiers each having inverting and non-inverting inputs and an output, each of said outputs comprising a negative feedback loop coupled to said inverting inputs and shunted to ground, said negative feedback loop of said first operational amplifier comprising a 50K linear potentiometer having variable resistive capacity to variably adjust gain of the signal and establish low impedance at said output of said first operational amplifier, said negative feedback loop of said second operational amplifier comprising a resistor/capacitor arrangement for stabilizing said feedback loop and restoring phase margin to said second operational amplifier;

(b) a DC Isolation filter interposed between said first and said second operational amplifiers;

(c) a spring reverberation device having an input for accepting a low impedance, high current signal from said output of second operational amplifier and an output for passing therethrough a reverberated signal; and

(d) a single operational amplifier having a non-inverting input shunted to ground and an output having a negative feedback loop coupled to said inverting input for setting a predetermined gain and impedance acceptable for input into the external sound device.

39) (New) The electronic circuit of claim 38 wherein the spring reverberation device employs three springs with each of said springs having a first spring end and a second spring end and each of the three first spring ends connected to a single first spring end connecting bar, and each of the three second spring ends connected a second spring end connecting bar.

40) (New) The electronic circuit as set forth in claim 39, wherein said negative feedback loops of said first and single operational amplifiers each comprise a 50K linear potentiometer having variable resistive capacity to variably adjust gain of the signal and a predetermined impedance at said outputs of said first and second operational amplifiers.

41) (New) The electronic circuit as set forth in claim 39, wherein said negative feedback loop of said second operational amplifier comprises a resistor/capacitor arrangement for stabilizing said feedback loop and restoring phase margin to said second operational amplifier.

42) (New) The electronic circuit as set forth in claim 39, wherein said output from said single operational amplifier comprises a capacitive capacity to filter voltage spikes prior to passing the signal to the external sound device and a path to ground having resistive capacity to reinforce the impedance of the signal from said single operational amplifier to match the impedance with that of the external sound device.